

# **Regional HIV/AIDS Epidemiologic Profile of Massachusetts: 2011**

## **Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data**

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Diseases, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed while residing in another state before being reported in Massachusetts. As of January 1, 2011, this resulted in the removal of 2,297 HIV/AIDS cases, of which 739 have died and 1,558 were living. These persons living with HIV/AIDS may currently reside and receive care in the Commonwealth. The total number of persons living in Massachusetts with HIV/AIDS, irrespective of location of diagnosis, is the basis for MDPH service planning. This change is partially a result of increased activities required by the Centers for Disease Control and Prevention (CDC) for de-duplication among states in an effort to identify cases that are counted multiple times in the National HIV/AIDS surveillance system. The cases are assigned to the state that reports the earliest date of AIDS diagnosis, if available. If the case has not progressed to AIDS, the case is assigned to the state with the earliest HIV diagnosis date. Please note that all previous HIV/AIDS fact sheets, data reports and presentations include cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the Massachusetts Department of Public Health (MDPH) HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual exposure mode category for males; those cases have been reassigned to the no identified risk (NIR) exposure mode category. The presumed heterosexual exposure mode category was used with the intention of identifying HIV exposure mode for females when sex with males is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. Twenty-nine percent of females living with HIV/AIDS and 41% of recent HIV diagnoses among females are reported in the presumed heterosexual exposure mode category. The application of the presumed heterosexual exposure mode category to males is overly inclusive in that female to male HIV transmission is biologically less probable, and there are alternate exposure modes that are possible for males, including sex with other men (MSM) or IDU. The CDC reports males diagnosed with HIV/AIDS who report sex with females as their only risk factor, without corresponding partner risk or HIV status information, in the NIR exposure mode category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for males in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual exposure mode categories for females.

**Table 1. Total number of people reported with HIV infection or AIDS<sup>1</sup> by mortality status on December 31, 2010: Massachusetts<sup>2</sup>**

	<b>N</b>	<b>%</b>
People Living with HIV/AIDS	17,621	59%
People Reported with HIV or AIDS who are Deceased	12,356	41%
<b>Total Number of People Reported with HIV Infection or AIDS</b>	<b>29,977</b>	<b>100%</b>

<sup>1</sup> Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 2. Average annual rate of HIV infection diagnosis from 2007 to 2009 and HIV/AIDS prevalence rate on 12/31/10<sup>1</sup>: Massachusetts<sup>2</sup>**

<b>Average annual HIV diagnosis rate from 2007–2009</b>	<b>Average rate per 100,000</b>	<b>Average annual number of HIV diagnoses</b>
Massachusetts Total	9.4	607.3
<b>HIV/AIDS prevalence rate on 12/31/10</b>	<b>Rate per 100,000</b>	<b>Number of people living with HIV/AIDS</b>
Massachusetts Total	273.7	17,621

<sup>1</sup> The denominators for prevalence calculations are based on year 2005 population estimates from the MDPH Bureau of Health Statistics, Research and Evaluation.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 3. People living with HIV/AIDS<sup>1</sup>, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year<sup>2</sup>: 2000–2009, Massachusetts<sup>3</sup>**

<b>Year</b>	<b>HIV/AIDS Prevalence</b>	<b>Deaths among those with HIV/AIDS</b>	<b>Diagnosis of HIV Infection</b>
2000	12,734	350	1,193
2001	13,320	412	998
2002	14,016	360	1,056
2003	14,578	381	943
2004	15,156	345	923
2005	15,704	317	865
2006	16,144	315	756
2007	16,501	279	636
2008	16,854	266	619
2009	17,208	213	567

<sup>1</sup> Number of people living with HIV/AIDS on 12/31 of each year

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/11

**Table 4. People diagnosed with HIV infection from 2007–2009<sup>1</sup> and people living with HIV/AIDS on December 31, 2010 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Massachusetts<sup>2</sup>**

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	1,342	74%	12,549	71%
Female	480	26%	5,072	29%
Place of Birth:	N	%	N	%
US	1,114	61%	11,768	67%
Puerto Rico/US Dependency <sup>3</sup>	151	8%	1,991	11%
Non-US	557	31%	3,862	22%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	743	41%	7,810	44%
Black (non-Hispanic)	595	33%	5,141	29%
Hispanic/Latino	433	24%	4,341	25%
Other/Undetermined <sup>4</sup>	51	3%	329	2%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	744	41%	6,252	35%
Injection Drug Use (IDU)	172	9%	3,920	22%
MSM/IDU	58	3%	575	3%
Heterosexual Sex	214	12%	2,477	14%
Other	10	1%	412	2%
Total Undetermined	624	34%	3,985	23%
• Presumed Heterosexual Sex <sup>5</sup>	198	11%	1,490	8%
• Undetermined <sup>6</sup>	426	23%	2,495	14%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2010	
Under 13	9	<1%	55	<1%
13 to 19	35	2%	174	1%
20 to 24	161	9%	326	2%
25 to 29	220	12%	583	3%
30 to 34	238	13%	1,018	6%
35 to 39	255	14%	1,735	10%
40 to 44	287	16%	3,104	18%
45 to 49	281	15%	3,980	23%
50 to 54	167	9%	3,209	18%
55 to 59	87	5%	1,871	11%
60+	82	5%	1,566	9%
<b>Total</b>	<b>1,822</b>	<b>100%</b>	<b>17,621</b>	<b>100%</b>

<sup>1</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>2</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>3</sup> Ninety-seven percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 3% were born in an unknown dependency.

<sup>4</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity

<sup>5</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>6</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>7</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/11

**Table 5. People living with HIV/AIDS on December 31, 2010 by gender and race/ethnicity: Massachusetts<sup>1</sup>**

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	6,448	51%	1,362	27%
Black (non-Hispanic)	2,935	23%	2,206	43%
Hispanic/Latino	2,921	23%	1,420	28%
Other/Undetermined <sup>2</sup>	245	2%	84	2%
<b>Total</b>	<b>12,549</b>	<b>100%</b>	<b>5,072</b>	<b>100%</b>

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

<sup>3</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 6. People living with HIV/AIDS on December 31, 2010 by gender and exposure mode: Massachusetts<sup>1</sup>**

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	6,252	50%	N/A	N/A
Injection drug use (IDU)	2,620	21%	1,300	26%
MSM/IDU	575	5%	N/A	N/A
Heterosexual sex	736	6%	1,741	34%
Other	231	2%	181	4%
Total Undetermined	2,135	17%	1,850	36%
• Presumed heterosexual sex <sup>2</sup>	N/A	N/A	1,490	29%
• Undetermined <sup>3</sup>	2,135	17%	360	7%
<b>Total</b>	<b>12,549</b>	<b>100%</b>	<b>5,072</b>	<b>100%</b>

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>3</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

<sup>4</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	Male		Female		Total
	N	%	N	%	
2000	833	70%	360	30%	1,193
2001	699	70%	299	30%	998
2002	715	68%	341	32%	1,056
2003	641	68%	302	32%	943
2004	651	71%	272	29%	923
2005	632	73%	233	27%	865
2006	545	72%	211	28%	756
2007	457	72%	179	28%	636
2008	458	74%	161	26%	619
2009	427	75%	140	25%	567

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	White NH		Black NH		Hispanic/Latino		Other/ Undetermined <sup>3</sup>		Total
	N	%	N	%	N	%	N	%	
2000	462	39%	420	35%	280	23%	31	3%	1,193
2001	412	41%	326	33%	233	23%	27	3%	998
2002	405	38%	371	35%	251	24%	29	3%	1,056
2003	380	40%	318	34%	226	24%	19	2%	943
2004	363	39%	304	33%	239	26%	17	2%	923
2005	345	40%	290	34%	213	25%	17	2%	865
2006	324	43%	227	30%	187	25%	18	2%	756
2007	261	41%	203	32%	159	25%	13	2%	636
2008	254	41%	205	33%	135	22%	25	4%	619
2009	228	40%	187	33%	139	25%	13	2%	567

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

<sup>4</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality.

NH = Non-Hispanic

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	US		Puerto Rico/ US Dependency <sup>3</sup>		Non-US		Total
	N	%	N	%	N	%	
2000	749	63%	133	11%	311	26%	1,193
2001	615	62%	107	11%	276	28%	998
2002	616	58%	97	9%	343	32%	1,056
2003	573	61%	93	10%	277	29%	943
2004	566	61%	98	11%	259	28%	923
2005	517	60%	75	9%	273	32%	865
2006	471	62%	64	8%	221	29%	756
2007	381	60%	53	8%	202	32%	636
2008	384	62%	52	8%	183	30%	619
2009	349	62%	46	8%	172	30%	567

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Ninety-seven percent of all people diagnosed with HIV infection in MA who were born in a US dependency were born in Puerto Rico, 1% were born in the US Virgin Islands, <1% were born in American Samoa, <1% were born in Guam and 3% were born in an unknown dependency.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX <sup>3</sup>		Undeter- mined <sup>4</sup>		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2000	352	30%	262	22%	30	3%	199	17%	21	2%	124	10%	205	17%	1,193
2001	308	31%	195	20%	29	3%	171	17%	15	2%	100	10%	180	18%	998
2002	325	31%	194	18%	26	2%	183	17%	7	1%	121	11%	200	19%	1,056
2003	314	33%	150	16%	26	3%	124	13%	13	1%	132	14%	184	20%	943
2004	302	33%	141	15%	23	2%	123	13%	12	1%	117	13%	205	22%	923
2005	336	39%	115	13%	22	3%	106	12%	5	1%	97	11%	184	21%	865
2006	316	42%	93	12%	15	2%	93	12%	5	1%	95	13%	139	18%	756
2007	244	38%	83	13%	19	3%	75	12%	4	1%	71	11%	140	22%	636
2008	259	42%	56	9%	25	4%	77	12%	4	1%	66	11%	132	21%	619
2009	241	43%	33	6%	14	2%	62	11%	2	<1%	61	11%	154	27%	567

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available 10 year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Includes female sex with male of unknown HIV status or risk. This category is limited to females.

<sup>4</sup> Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11

**Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Massachusetts<sup>1</sup>, 2000–2009<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2000	406	1,193	34%
2001	363	998	36%
2002	365	1056	35%
2003	300	943	32%
2004	315	923	34%
2005	305	865	35%
2006	264	756	35%
2007	228	636	36%
2008	187	619	30%
2009	177	567	31%

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program, data as of 1/1/11



**Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Massachusetts,<sup>1</sup> 2007–2009<sup>2</sup>**

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
<b>Gender:</b>	<b>N</b>	<b>N</b>	<b>%</b>
Male	454	1342	34%
Female	138	480	29%
<b>Race/Ethnicity:</b>	<b>N</b>	<b>N</b>	<b>%</b>
White (non-Hispanic)	219	743	29%
Black (non-Hispanic)	197	595	33%
Hispanic/Latino	160	433	37%
Other/Undetermined <sup>3</sup>	16	51	31%
<b>Place of Birth:</b>	<b>N</b>	<b>N</b>	<b>%</b>
US	334	1114	30%
Puerto Rico/US Dependencies <sup>4</sup>	50	151	33%
Non-US	208	557	37%
<b>Total</b>	<b>592</b>	<b>1822</b>	<b>32%</b>

<sup>1</sup> Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

<sup>2</sup> Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

<sup>3</sup> Other/Undetermined includes Asian/Pacific Islander, American Indian/Alaska Native and people of unspecified race/ethnicity.

<sup>4</sup> Ninety-nine percent of people diagnosed with HIV infection from 2007–2009 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands and <1% were born in Guam.

<sup>5</sup> Numbers less than 5 for localities with populations of less than 50,000 are suppressed for the assurance of confidentiality

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), data as of 1/1/11